MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2018 / 2019

PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN

(Foundation in Business)

13 MARCH 2019
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages (excluding the cover page) with 5 questions only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

QUESTION 1 [10 Marks]

a. Based on **Figure 1**, what is the role of input and output devices in a computer system?

Figure 1

(2 marks)

b. Many company premises use several remote-controlled CCTV systems, as shown in **Figure 2**, for security. Then, the security officer can watch, control and record the output. State **ONE (1)** input and **ONE (1)** output device the system could use and why they are required.

(2 marks)

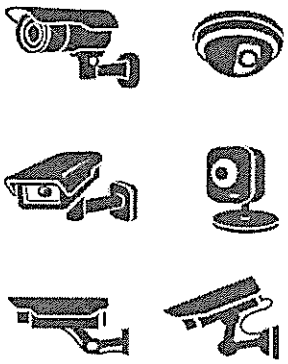

Figure 2

c. Give **TWO (2)** reasons why laser printer is better than inkjet printer.

(2 marks)

d. Random Access Memory (RAM) is known as volatile memory and secondary storage such as hard disk is known as non-volatile memory. Why are they called so?

(2 marks)

e. Many computer users today choose 'cloud' to save their data. Explain what 'cloud' is and why it is becoming more popular nowadays.

(2 marks)

Continued ...

QUESTION 2 [10 Marks]

a. Briefly describe the sequence of steps used to process an instruction that occur in machine cycle.

(2 marks)

b. Refer to **Figure 3**, what is the relationship between Random Access Memory (RAM) and Central Processing Unit (CPU) in the system unit?

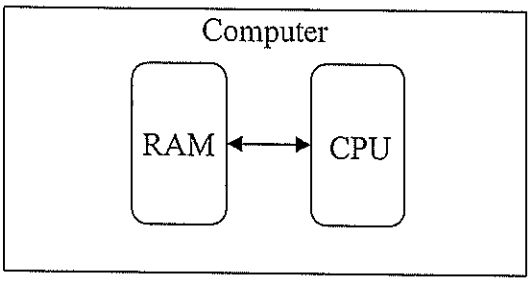

Figure 3

(2 marks)

c. Multitasking enables more than a single process to apparently execute simultaneously and creates foreground and background processing. Explain what is foreground and background processing.

(2 marks)

d. Describe **THREE (3)** general roles of an operating system, and briefly explain why they are important. Name **ONE (1)** operating system used in a smart phone and **ONE (1)** operating system used in PC.

(4 marks)

QUESTION 3 [10 Marks]

a. Refer to **Table 1**, suggest **ONE (1)** example of software that you know or use in your daily lives for each type of application software.

Table 1

Application Software Type	Examples
Word processing software	
Database software	
Spreadsheet software	
Multimedia software	

(2 marks)

b. Shareware is one type of software category that defines how programs may be distributed, copied, used, and modified. State **TWO (2)** characteristics of shareware programs.

(2 marks)

Continued ...

c. Describe the layout of LAN network with a ring topology.

(2 marks)

d. HTTP, HTTPS, TCP/IP, FTP, SMTP, WiMAX and IrDA are examples of network protocols. Choose any **TWO (2)** from the examples given and briefly explain each function.

(2 marks)

e. Other than cost, state **TWO (2)** advantages of an Internet broadband connection.

(2 marks)

QUESTION 4 [10 Marks]

a. What is a database? Give **TWO (2)** examples of where a database might be used.

(3 marks)

b. How does a database prevent data duplication?

(1 mark)

c. Relating to database security, what is the meaning of principle of least privilege and briefly discuss how does it work?

(2 marks)

d. Give **TWO (2)** reasons why would you choose GIF format over JPEG format.

(2 marks)

e. Briefly explain what it means by streaming video and its advantage.

(2 marks)

QUESTION 5 [10 Marks]

a. As one of the computer users, give **TWO (2)** reasons why computer security is important.

(2 marks)

b. State **THREE (3)** ways in which you would know your computer have a virus.

(3 marks)

c. What is the purpose of the digital certificate found on some websites?

(2 marks)

d. In the context of information security, what is social engineering?

(1 mark)

e. In computer security, 'honeypot' is used to protect from internet and network attacks. Explain what and how it works.

(2 marks)

End of Paper